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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DIMICHELE, ROBERTO

ART UNIT PAPER NUMBER

3654

DATE MAILED: 06/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/841,473

Applicant(s)

SAUDER ET AL.

Examiner

Roberto DiMichele

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: .

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DETAILED ACTION

Priority

Reference to Parent Application Required

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)).

Benefit of Parent Application Acknowledged

Acknowledgment is made of Applicant's claim for benefit of U.S. Patent Application No. 09/323,300 filed on June 1, 1999.

Drawings

Informal Drawings

This application has been filed with informal drawings that are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claimed Subject Matter Not Shown

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter described in claims 8 and 16 relating to the plurality of vanes comprising a plurality of turbine vanes must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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Reference Numbers not in the Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include reference sign (142) designating a ratchet pawl, nor do the drawings include reference sign (140) designating a ratchet gear as mentioned in the specification beginning on page 8, line 11. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Proposed Corrections to Drawings Must Be Made in Red Ink

Applicant is reminded that proposed drawing corrections must be made in the form of a pen-and-ink sketch showing changes in red ink or with the changes otherwise highlighted. See MPEP § 608.02(v).

A proposed drawing correction or corrected drawings correcting the defects noted above are required in reply to this Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

Use of Trademarks

The use of the trademark "LOCTITE" on page 6, line 4, has been noted in this application. The trademark "LOCTITE" should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner that may adversely affect their validity as trademarks.

Informalities in the Disclosure

The disclosure is objected to because of the following informalities:

- Within lines 15-16 of page 5, "inner end 42 of air house 12" should read -- inner end 22 of air house 12 --.
- Within line 2 of page 6, "is a press-fit in bore" should read -- is press-fit into bore --.
- Within line 24 of page 6, the period after "lie" should be deleted.
- Within line 29 of page 7, "rollers 114" should read -- rollers 104 --.
- Within lines 14 and 17 of page 8, a period should follow "FIG".
- Within line 7 of page 9, one of the periods following "176" should be deleted.
- Within line 13 of page 10, "FIG. 7" should read -- FIG. 8 --.

Appropriate correction is required.

Claim Objections

Informalities in the Claims

Claim 1 is objected to because of the following informalities:

- Line 13, the Examiner suggests that -- to -- should be inserted after "operating".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the Applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the Applicant for patent.

Claims 1, 3, 7, 9, 11, and 15 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,186,289 to Wolner.

Wolner shows an apparatus for storing an elongate member comprising a support frame (22), a spool (44) rotatably supported by the support frame, wherein the spool has a cylindrical body and a pair of flanges, a spring rewind motor (76) operatively disposed between the support frame and the spool, a viscous clutch assembly (72) operatively disposed between the spool and the support frame to exert a retarding torque between the spool and the support frame, wherein the viscous clutch assembly comprises a housing (58) defining a sealed chamber, a viscous liquid therein, and a plurality of vanes comprising a plurality of stator disks (126) and a plurality of rotor disks (128) disposed within the sealed chamber, wherein the stator and rotor disks define a

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plurality of annular gaps therebetween such that the viscous liquid is sheared in the plurality of annular gaps to provide a multi-plate viscous dampening.

The apparatus for storing an elongate member of Woiner further comprises a ratchet and pawl unidirectional clutch assembly (74) operatively disposed between the spool and the support frame, wherein the unidirectional clutch assembly operates to disengage the viscous clutch assembly when the spool is rotated in a first rotational direction, thereby permitting the spool to rotate without the viscous clutch exerting a substantial retarding torque, wherein the unidirectional clutch assembly further operates to engage the viscous clutch assembly such that the viscous clutch exerts a retarding torque between the spool and the frame for limiting rotational velocity of the spool when the spool is rotated in a second direction.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Joint Inventors, Common Ownership Presumed

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

Claims 2, 4-6, 10, and 12-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,186,289 to Wolner.

The apparatus for storing an elongate member of Wolner comprises a ratchet and pawl unidirectional clutch assembly (74) operatively disposed between the spool and the support frame, as applied to claims 1 and 9 above. Although Wolner does not explicitly disclose the use of a ramp and ball overruning clutch, or a sawtooth axial gear clutch, or a ramp and roller overruning clutch, or a helical spring clutch, these forms of unidirectional clutches are well known in the art and are functional equivalents.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus for storing an elongate member of Wolner with any of the well known unidirectional clutches known in the art in order for the viscous clutch assembly to be disengaged by the unidirectional clutch assembly the when the spool is rotated in a first rotational direction, thereby permitting the spool to rotate without the viscous clutch exerting a substantial retarding torque and to be engaged such that the viscous clutch exerts a retarding torque between the spool and the frame for limiting rotational velocity of the spool when the spool is rotated in a second direction.

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Claims 8 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,186,289 to Wolner in view of U.S. Patent No. 4,722,422 to Hiroaka.

The apparatus for storing an elongate member of Wolner comprises a viscous clutch assembly including a housing (58) defining a sealed chamber, a viscous liquid therein, and a plurality of vanes disposed within the sealed chamber. Wolner does not explicitly disclose the plurality of vanes disposed within the sealed chamber comprising a plurality of turbine vanes.

Hiraoka discloses an apparatus for storing an elongate member of comprising a viscous clutch assembly including a housing (3) defining a sealed chamber, a viscous liquid therein, and a plurality of vanes (12) comprising a plurality of turbine vanes disposed within the sealed chamber. See column 2, lines 14-33, of Hiraoka.

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It would have been an obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus for storing an elongate member of Wolner with a viscous clutch assembly comprising a housing defining a sealed chamber, a viscous liquid therein, and a plurality of vanes comprising a plurality of turbine vanes disposed within the sealed chamber, as per the teachings of Hiraoka, in order to provide a means for the viscous clutch to exert a retarding torque between the spool and the frame for limiting rotational velocity of the spool when the spool is rotated in a second direction.

Conclusion

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The patents cited further show the state of the art with respect to viscous clutch systems in general.

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Roberto DiMichele whose telephone number is (703) 306-5768. The Examiner can normally be reached during business hours Monday through Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Katherine Matecki can be reached on (703) 308-2688. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9326 for before final communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

RD

June 17, 2002

Kathy Matecki
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